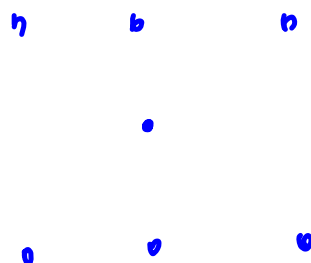
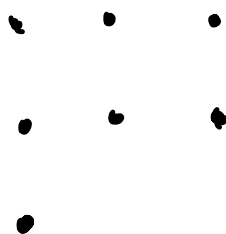


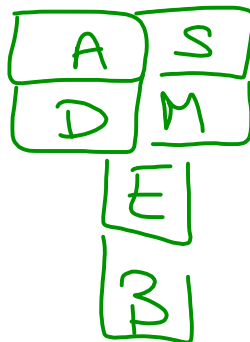
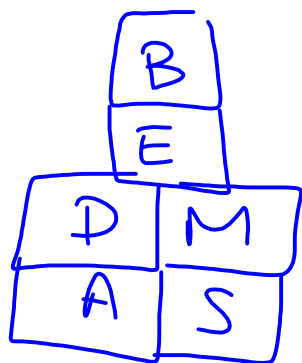
Warm Up

How can seven trees be planted so that there are six rows of trees in a straight line with each row having three trees? For example, if you plant them the following way you get only four rows of three (two horizontal, one vertical, one diagonal).



Solving Equations

When we solve equations, we use SAMDEB



Examples

1) $x + 9 = 20$
 $x = 20 - 9$
 $x = 11$

$$\begin{array}{r} x + 9 = 20 \\ -9 \quad -9 \\ \hline x = 11 \end{array}$$

2) $3x - 9 = 2x + 4$
 $3x - 2x = 4 + 9$
 $x = 13$

$$\begin{array}{r} 3x - 9 = 2x + 4 \\ +9 \quad +9 \\ \hline 3x = 2x + 13 \\ -2x \quad -2x \\ \hline x = 13 \end{array}$$

3) $6(x-1) = 2(x+4)$
 $6x - 6 = 2x + 8$
 $6x - 2x = 8 + 6$
 $4x = 14$
 $x = \frac{14}{4} = \frac{7}{2}$
 $= 3.5$

Remember Expansion?

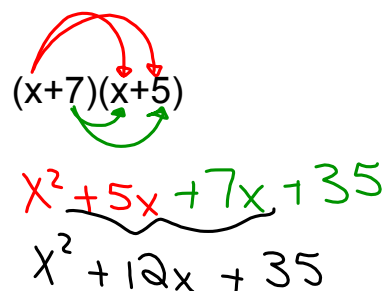
When we ask you to expand, we are typically asking you to get rid of the brackets! We have already done this solving equations.



$$3(x+8) \quad \text{multiply}$$

$$3x + 24$$

Remember what to do if we have 2 brackets together???



$$(x+7)(x+5)$$

$$x^2 + 5x + 7x + 35$$

$$x^2 + 12x + 35$$

$$(x-9)(x+1)$$

$$x^2 + 1x - 9x - 9$$

$$x^2 - 8x - 9$$

$$(2x-1)(x+5)$$

$$2x^2 + 10x - 1x - 5$$

$$2x^2 + 9x - 5$$

Try These

$$x^2 - 2x + 3x - 6 = x^2 + x - 6$$

1) $(x+3)(x-2)$

2) $(2x-1)(x+9)$

3) $(x-1)(4x+3)$

4) $(x+3)(2x+1)$